Application No.: 10/612,889

Amendment dated July 1, 2008

Response to Office action dated April 2, 2008

Amendments to the Specification:

Please replace paragraph 0040 on page 10 with the following paragraph:

Each cell has descriptive information communicated along with the cell itself. This descriptive information may include the number of valid bytes in the cell, the identify of packet to which the cell belongs and the relative or absolute position of the cell within the parent packet. For example, a cell header may be attached to each of the cells, the header including a packet identifier. Additionally, the cell header may include a packet position indicator identifying its position in the packet. A packet position indicator may be implemented as an end of packet indicator, a start of packet indicator, and a combination of both. For example, a cell having both its end of packet indicator and its start of packet indicator both set indicates the cell contains the entire packet. The cell header may also include a slice position indicator identifying the cell's position in a packet slice of data. Though described here as a header, these values may form a trailer for the cell, may beembedded be embedded within the cell at some point or be communicated by some "out of band" data path. An example of an "out of band" path would be a separated control information path.

Please replace the paragraph 0044 beginning on page 11 with the following paragraph:

Each of the processing slices 208₁ and 208_N performs lookup functions with respect to the packet slice received from the network module 212. One example of a lookup function is determining the network destination of the slice's associated packet. The system software (not shown) establishes and maintains a variety of lookup tables. Using one or more fields in a packet's header data, the processing slices 2081 and 208N search these tables in order to make network destination determinations. For example, by examining layer 2, layer 3 and other packet header information, the processing slice 208 N determines to which line card, network interface and VLAN/channel the packet is to be forwarded. The processing slice 208_N determines to which communications flow the packet belongs. A communication flow exists when certain path-identifying parameters are shared by a sequence of packets. These parameters include but are not limited to: source port, destination port, virtual LAN, priority and protocol type. It is

Page 2 of 15

Application No.: 10/612,889 Amendment dated July 1, 2008

Response to Office action dated April 2, 2008

desirable that within a flow, the order of packet transmission from a switching/routing system matches that of packet reception. If channelized operation is in use, the communications flow may be part of a logical channel traversing the same physical channel as other logical channels. The cell descriptive data may include a communication flow identifiers. The communication flow identifier may include a channel number indicator. In one example, the channel number indicator may include a sourceidentifier source identifier, for example the source port through which the packet was received as well as a destination identifier such as a destination index for an egress port of the switch fabric. The processing slice 208_N determines, based on the network destination for the packet, the destination identifier for the packet. In another example, a processing slice also determines a queue number for the packet which is included in a system header for the queuing module 206 to read. Some other examples of functions that may be performed include packet editing, communication of packet length change, access control, priority assignment/confirmation, and other such features. Each processing slice 208₁ and 208_N also has access to a storage sub-system including memory for storing one or more buffers for each processing slice 208₁ and 208_N and buffer manager. The buffer manager maintains a buffer correlation data structure for correlating one or more buffers of the same packet slice. An example of a buffer correlation data structure is a linked list.